Before the
Federal Communications Commission
Washington, D.C. 20554

PR Docket No. 93-143

In the Matter of

Amendment of the Marine Services Rules (Part 80) and Aviation Services Rules (Part 87) to require registration of 406 MHz radiobeacons	RM-8008

NOTICE OF PROPOSED RULE MAKING

Adopted: May 11, 1993; **Released: May 19, 1993**

Comment Date: July 9, 1993
Reply Comment Date: July 26, 1993

By the Commission:

I. INTRODUCTION

1. The United States Coast Guard (Coast Guard) filed a petition (RM-8008), Public Notice No. 1894, requesting that the Commission amend Part 80 of the Rules, 47 C.F.R. Part 80, to require registration of emergency position indicating radiobeacons (EPIRBs) operating on the frequency 406.025 MHz with the National Oceanic and Atmospheric Administration (NOAA). Additionally, in the *Report and Order* in PR Docket No. 92-125,[1] the Commission stated that it would address separately the issue of mandatory registration of emergency locator transmitters (ELTs) operating on the frequency 406.025 MHz in the Aviation Services.[2]

II. BACKGROUND

2. EPIRBs and ELTs have been instrumental in over 2500 rescues worldwide. Distress signals transmitted by EPIRBs and ELTs are detected by the COSPAS/SARSAT[3] satellite system. The United States, Canada, France and the Soviet Union operate COSPAS/SARSAT satellites which monitor wide areas of the globe for distress signals on 121.500 MHz, 243.000 MHz, and 406.025 MHz. Signals on 121.500 MHz are continuous signals that are amplitude modulated with an audio swept tone and provide distress alerting and guidance (homing) assistance in emergency situations. The 121.500 MHz signal can only be detected and relayed to search and rescue (SAR) personnel when a COSPAS/SARSAT satellite is in range of both the 121.500 MHz beacon and a rescue coordination center (RCC). There are, therefore, "blind spots" where distress signals can not be relayed to an RCC. The 406.025 MHz distress signals, however, are digital and can be detected and stored on COSPAS/SARSAT satellites and retransmitted to RCCs when satellites are in range. In addition to distress alerting, the 406.025 MHz signal contains information that specifically identifies the beacon and other information to facilitate SAR operations.

3. NOAA maintains a database for 406 MHz EPIRBs that contains more than 13,400 unique identification codes and registration information. Registration by beacon owners in this database is strongly encouraged through education programs by the Coast Guard and NOAA, but is presently voluntary. Manufacturers are required by rule[4] to program into each EPIRB or ELT a unique code and provide an equipment plate or label on each 406 MHz EPIRB or ELT displaying the unique NOAA identification code and registration instructions. Manufacturers must also include a pre-paid, pre-addressed post card soliciting the owner's name and address, telephone number, the type of ship or aircraft and the unique identification code for registration in NOAA's database. When the distress signal is relayed to an RCC the registration information is available to SAR personnel.

4. The planned introduction of geostationary satellites in the mid 1990's that are capable of receiving 406.025 MHz distress signals as an adjunct to the COSPAS/SARSAT system of polar orbiting satellites offers potentially significant improvements in the identification of distress situations to global SAR forces.[5] Geostationary satellites offer the advantage of receiving a 406.025 MHz distress signal almost instantly, but distress signals received by geostationary satellites do not provide position information.[6] Detecting an alert without position or other information, however, is useless.[7]

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[1] 8 FCC Rcd _____, (1993).

[2] Emergency position indicating radiobeacon stations are small battery powered transmitters used to send a distress signal that is used as an alerting signal and to assist search and rescue personnel. In the United States such beacons are named emergency locator transmitters (ELTs) when carried on an aircraft and emergency position indicating radiobeacons (EPIRBs) when carried on ships. ELTs and EPIRBs operate on the same internationally allocated frequencies and transmit identical distress signals.

[3] COSPAS is an acronym for a Russian phrase meaning space system for search and distress vessels. SARSAT stands for search and rescue satellite-aided tracking.

[4] *See* Sections 80.1061(e) and 87.199(e), 47 C.F.R. §§ 80.1061(e) and 87.199(e).

[5] Currently the system has one experimental geostationary satellite located above the Americas at the equator, with Japan, India and Spain planning to place similar geostationary satellites with COSPAS/SARSAT capability into orbit.

[6] Position information is determined by the Doppler shift of a distress signal. Geostationary satellites orbit synchronously with the earth's rotation and are, thus, apparently not moving relative to a beacon's position on the earth's surface. Doppler shift occurs when a polar orbiting satellite passes over a beacon.

[7] Because polar orbiting satellites orbit the earth in approximately 90 minutes and are not evenly spaced, they may not pass over an emergency beacon for up to an hour and a half. A geostationary satellite, however, is capable of detecting beacons anywhere within the satellite's footprint.

III. DISCUSSION

5. When a 406 distress signal is received by the United States Mission Control Center (USMCC), operated by NOAA, the beacon identification number is used to determine if there is any registration information. If the beacon is registered, information such as the owner's name and address, telephone number and the type of ship or aircraft, is relayed to SAR forces in a matter of minutes. The Coast Guard requests that we require registration of EPIRBs used on the frequency 406.025 MHz and states that access to information contained in NOAA's database can be used to assist ships in distress.[8] For example, a rescue operation for a ship carrying 20 passengers requires different resources than a rescue of one person in a small boat. Additionally, the Coast Guard states that requiring registration will allow SAR forces to contact the beacon owner and determine whether the distress is real or false, resulting in more efficient SAR operations, more lives saved in real distress situations, and saving valuable resources when no distress exists.

6. The commenters in PR Docket No. 92-215 strongly agree that beacon registration is essential to realize the full benefit of the 406 MHz satellite system.[9] The Air Force, Coast Guard, NOAA and National Aeronautics and Space Administration (NASA) agree that having access to registration information along with the improved location accuracy of the 406 MHz system can result in a reduction of the time needed to complete a SAR operation. NOAA and NASA estimate that registration will save on average 6 hours per mission.[10] Further, NOAA states that its experience with voluntary registration of 406 EPIRBs shows that when 406 EPIRBs are registered in its database the Coast Guard has been able to avoid unnecessarily using SAR resources by screening false distress signals through telephone calls to registered owners.[11] Typical mission costs of launching a single helicopter to locate and investigate a distress signal are approximately $4,000. The potential savings to the Federal government and SAR forces are substantial with no additional cost or burden to manufacturers and little burden to beacon users. The beacon user would be required to mail to NOAA the pre-paid, pre-addressed post card that the manufacturers currently provide requesting registration information.[12] In view of the strong support in these comments, and because beacon registration can provide valuable distress information to SAR personnel concerning the type and size of the aircraft/vessel as well as prevent launching potentially dangerous missions on false distress signals, we propose to require that 406 MHz ELTs and 406 MHz EPIRBs be registered in NOAA's database.

IV. PROCEDURAL MATTERS

7. This is a non-restricted notice and comment rule making proceeding. *Ex Parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in Commission rules. *See generally* 47 C.F.R. §§ 1.1202, 1.1203, 1.1206(a).

8. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission Rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments on or before **July 9, 1993,** and reply comments on or before **July 26, 1993**. To file formally in this proceeding, you must file an original and four copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments and reply comments, you must file an original plus nine copies. You should send comments and reply comments to the Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Docket's Reference Room of the Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554.

9. We certify that the Regulatory Flexibility Act of 1980 does not apply to this rule making proceeding because if the proposed rule amendments are promulgated, there will not be a significant economic impact on a substantial number of small business entities, as defined by Section 601(3) of the Regulatory Flexibility Act. The change proposed herein will have a beneficial effect on the marine and aviation community by enhancing information available to SAR personnel for use in distress situations and will not have a significant economic impact on any entity. The Secretary shall send a copy of this Notice of Proposed Rule Making, including the certification, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 605(b) of the Regulatory Flexibility Act. Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. §§ 601-612 (1980).

10. For further information, call James Shaffer, Private Radio Bureau, Special Services Division, (202) 632-7197.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

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[8] Without a point of contact from the registration database to determine the aircraft or vessel's description and itinerary, the potential value of dispatching SAR resources up to five hours sooner cannot be realized. The value of the registration information, in general, was dramatically demonstrated recently when one of the world's most experienced long-distance sailors, Mike Plant, failed to register his 406 MHz EPIRB. Even though a distress signal was picked up on October 27, 1992, the beacon's identification number had no name in the registration database to identify the sender of the signal. It took several days to track down the beacon's identification number from the store where Plant had purchased it. *See* N.Y. Times, Nov. 14, 1992, at 1.

[9] Comments to PR 92-215, NASA at 3, NOAA at 3, Air Force at 2, Coast Guard at 2, Coppin of MPR Teltech, Ltd. at 3.

[10] Comments to PR 92-215 by NASA at 5, NOAA at 7.

[11] NOAA notes that when 406 EPIRBs are registered the Coast Guard is able to resolve approximately 80 per cent of false distress signals prior to launching a SAR mission. By contrast, when the 406 EPIRB is not registered the Coast Guard is only able to resolve approximately 20 per cent of all false distress signals prior to launching a SAR mission. Comments to PR 92-215, NOAA at 3.

[12] Compliance programs would consist primarily of educational activities. Monetary forfeitures could be imposed, however, particularly in cases where failure to register a 406 MHz EPIRB results in the unnecessary use of SAR forces.

PROPOSED RULE

Parts 80 and 87 of Chapter 1 of Title 47 of the Code of Federal Regulations are proposed to be amended as follows:

Part 80 - STATIONS IN THE MARITIME SERVICES

1. The authority citation for Part 80 continues to read as follows:

AUTHORITY: Secs. 4, 303, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609; 3 UST 3450, 3 UST 4726, 12 UST 2377.

2. Section 80.1061 paragraph (e) is amended by revising the last two sentences of paragraph (e) and revising paragraph (f) to read as follows:

§ 80.1061 Special requirements for 406.025 MHz EPIRBs.

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(e) * * * With each marketable EPIRB unit the manufacturer or grantee must include a postage pre-paid registration card printed with the EPIRB identification code addressed to: NOAA/NESDIS, SARSAT Operations Division, E/SP3, Federal Building 4, Washington, DC 20233. The registration card must request the owner's name, address, telephone number, type of ship and include the following statement: "WARNING-failure to register this EPIRB with NOAA could result in a monetary forfeiture being issued to the owner."

(f) To enhance protection of life and property it is mandatory that each 406.025 MHz EPIRB be registered with NOAA and that information be kept up-to-date. Therefore, in addition to the identification plate or label requirements contained in §§ 2.925, 2.926 and 2.1003 of this chapter, each 406.025 MHz EPIRB must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: "The owner of this 406.025 MHz EPIRB must register the NOAA identification code contained on this label with the National Oceanic and Atmospheric Administration (NOAA) whose address is: NOAA, NOAA/SARSAT Operations Division, E/SP3, Federal Building 4, Washington, D.C. 20233." Vessel owners shall advise NOAA in writing upon change of vessel or EPIRB ownership, transfer of EPIRB to another vessel, or any other change in registration information. NOAA will provide registrants with proof of registration and change of registration postcards.

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Part 87 - AVIATION SERVICES

3. The authority citation for Part 87 continues to read as follows:

AUTHORITY: 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, unless otherwise noted. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-156, 301-609.

4. In Section 87.199 paragraphs (e) and (f) are revised to read as follows:

§ 87.199 Special requirements for 406.025 MHz ELTs.

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(e) An identification code, issued by the National Oceanic and Atmospheric Administration (NOAA), the United States Program Manager for the 406.025 MHz COSPAS/SARSAT satellite system, must be programmed in each ELT unit to establish a unique identification for each ELT station. With each marketable ELT unit the manufacturer or grantee must include a postage pre-paid registration card printed with the ELT identification code addressed to: NOAA/NESDIS, SARSAT Operations Division, E/SP3, Federal Building 4, Washington, DC 20233. The registration card must request the owner's name, address, telephone number, type of aircraft and include the following statement: "WARNING-failure to register this ELT with NOAA could result in a monetary forfeiture being issued to the owner."

(f) To enhance protection of life and property it is mandatory that each 406.025 MHz ELT be registered with NOAA and that information be kept up-to-date. In addition to the identification plate or label requirements contained in §§ 2.925, 2.926 and 2.1003 of the Commission Rules, each 406.025 MHz ELT must be provided on the outside with a clearly discernable permanent plate or label containing the following statement: "The owner of this 406.025 MHz ELT must register the NOAA identification code contained on this label with the National Oceanic and Atmospheric Administration (NOAA) whose address is: NOAA, NOAA/SARSAT Operations Division, E/SP3, Federal Building 4, Washington, D.C. 20233." Aircraft owners shall advise NOAA in writing upon change of aircraft or ELT ownership, transfer of ELT to another aircraft, or any other change in registration information. NOAA will provide registrants with proof of registration and change of registration postcards.

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